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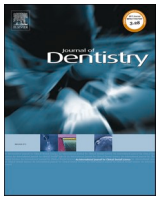

Positive reinforcement: Balancing negative and positive feedback for comprehensive improvement

E Barrow [a,*], P Mylonas [c], R Pattinson [b], L Sadaghiani [d]

[a] Royal Surrey County Hospital, Guildford, UK
[b] School of Dentistry, Cardiff University, Cardiff, UK
[c] Restorative Dentistry at the School of Dentistry, Cardiff University, Cardiff, UK
[d] Restorative Dentistry, BDS Programme Lead at the School of Dentistry, Cardiff University, Cardiff, UK

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ABSTRACT

Patient feedback plays a vital role in healthcare, offering insights into the quality of care and promoting professional development. Despite the emphasis on feedback collection from regulatory bodies, institutional policies appear to focus on processing complaints and negative feedback over positive feedback.

The aim of this study is to investigate the processes relevant to the systematic logging of patient feedback in the dental hospitals across the UK and the Republic of Ireland.

A cross-sectional survey study was conducted with a prior local survey serving as a pilot. Of the 22 hospitals of the ADH, 13 responded to the questionnaire (59 %). Descriptive statistics including frequencies and percentages were produced to summarise the sample and data. Qualitative data were analysed using Braun and Clark's thematic analysis [1] following an inductive approach.

We found that the institutions of the ADH perceive that most negative feedback is logged, whereas most positive feedback is missed. It is evident that positive patient feedback is collected and logged less systematically than negative feedback, and most institutions acknowledge the need for improvement in this area. This discrepancy likely stems from a lack of structured procedures for encouraging and recording positive feedback.

Promoting positive feedback is crucial, as both positive and negative feedback offer valuable insights. To enhance feedback collection and utilisation, research should expand to include the perspectives of patients and individual clinicians. Furthermore, exploring the development of a universal feedback system could simplify and improve the collection and use of patient feedback across institutions.

Clinical significance: A discrepancy is apparent in the perceived effectiveness of feedback collected for staff and students, with students receiving more comprehensive feedback. An online platform for capturing patient expressions of gratitude can be beneficial, facilitating the recording of feedback as it is received and encouraging more patients to provide their input.

1. Introduction

Patient feedback is crucial for assessing care quality and fostering professional growth. Despite regulatory bodies emphasis on feedback collection in general, institutional policies often focus more on processing negative feedback. An internal audit performed at the University Dental Hospital, Cardiff in 2022 [2] found that current systems favour logging negative feedback, while positive feedback, especially verbal comments, is frequently overlooked, leading to a skewed view of organisational performance. Promoting positive feedback is essential, as both positive and negative feedback provide valuable insights.

At an individual level too, there is a psychological bias towards negative feedback [3] which further highlights the need for balanced feedback collection. High levels of stress and burnout are reported among dentists [4]. Focusing mainly on negative feedback can lead to clinician demoralisation and burnout by perpetuating a cycle of negativity and neglecting their strengths. Self-Determination theory highlights that meeting intrinsic needs for autonomy and competence is crucial for motivation and well-being [5]. Without positive feedback, dentists may feel undervalued, increasing their risk of burnout levels

* Corresponding author.
E-mail addresses: ethan.barrow@nhs.net (E. Barrow), mylonasp@cardiff.ac.uk (P. Mylonas), PattinsonR@cardiff.ac.uk (R. Pattinson), sadaghianil@cardiff.ac.uk (L. Sadaghiani).

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[4]. Incorporating positive feedback can create a culture of appreciation, helping to reduce burnout and improve clinician retention. High stress and burnout among healthcare professionals are shown to negatively affect patient outcomes, job satisfaction, productivity, and can worsen the shortage of healthcare professionals in the UK [6,7], emphasising the need for strategies to address these issues.

For obvious reasons, all healthcare providers are required to have a formal complaints procedure and an electronic incident log, along with a policy for addressing concerns raised or harm done to patients (regulation 16 [8]). Whilst the regulatory bodies do not enforce an official means of collecting positive feedback, a desire is outlined by the NHS Constitution for England, the General Dental Council (GDC), and NICE [9,10], to collect all feedback, "both positive and negative" [9]. However, there are currently no universally applied systems for logging and processing of positive feedback.

In the absence of official guidance and a unified approach for collecting positive feedback, this study categorized it into "verbal," "written," and "other" means. For negative feedback, the study considered the current established methods and "other" additional contemporary means which individual institutions might apply.

Providing feedback, including positive feedback, is a behavioural action, therefore, other patients require the capability, opportunity, as well as motivation to do this [11]. Examples of means that facilitate feedback collection and processing include independent online feedback systems such as the Care Opinion Platform, confidential support and information service for patients such as the Patient Advice and Liaison System (PALS), feedback tools such as the Friends and Family Test (FFT) which investigates whether individuals would recommend a service to their friends and family, and the Complete Assessment Feedback System (CAFS) which is a system used in teaching hospitals for longitudinal monitoring of student performance also enables feedback collection from patients.

It is essential that feedback procedures are carefully planned; however, it remains unclear how they are systematically implemented within the UK healthcare system to effectively encourage and facilitate positive feedback. This study aims to investigate the feedback collection process across hospitals in the UK and the Republic of Ireland and provide insight into current practices for collecting positive feedback compared to negative feedback.

2. Methods

A cross-sectional survey study was conducted with a prior local survey serving as a pilot. Ethical approval was obtained from the Cardiff University Dental School Research Ethics Committee (Ref: CU DSREC 2316). Participants provided informed consent before taking part, which was secured through an information letter sent along with a link to the online survey.

2.1. Participants and recruitment

Purposive sampling was used by contacting the patient experience teams at all 22 members of the Association of Dental Hospitals (ADH) [12] through their representative in the Dental Schools Council (DSC) via email. No exclusions were applied; the only inclusion criterion was that the hospital be a member of the ADH. Each participant received an information letter and a link to the online survey. Participation was voluntary, and non-response was considered as non-participation.

2.2. Procedure and materials

The survey was open for 7 weeks between August to October 2023. Participants were directed to the online platform which included the consent form and survey. A reminder email was circulated centrally after the initial deadline of 4 weeks.

The survey was created using Microsoft Forms (see Appendix A). It consisted of a combination of multiple-choice questions and open-ended responses to allow participants to provide qualitative information. Questions were designed to investigate the methods by which patient feedback was collected and identify any differences in the processes for recording positive and negative patient feedback.

2.3. Data analysis strategy

Quantitative data were analysed using Microsoft Excel. Descriptive statistics including frequencies and percentages were produced to summarise the sample and data.

Qualitative data were analysed using Braun and Clark's thematic analysis [1] following an inductive approach. This allowed themes to emerge directly from the data, ensuring that the analysis was grounded in participants' perspectives.

3. Results

3.1. Sample characteristics

Thirteen of the twenty-two registered hospitals of the ADH responded to the questionnaire, a response rate of 59 %. A wide geographical area was represented in the study with institutions from across the UK and the Republic of Ireland taking part.

3.2. Systematic procedures for collecting patient feedback

The institutions reported a variety of systematic procedures for the collection of negative patient feedback and incidents (Fig. 1). The results showed that all the institutions, 13/13 (100 %), reported utilisation of either a complaints procedure or an electronic incident log. 4/13 (31 %) had implemented one or more additional routes for communicating constructive feedback including the FFT, PALS, CAFS and the Care opinion website.

Conversely, when asked about which systematic procedures are in place for the collection of positive patient feedback (Fig. 2) there was a reduced variety of means compared to negative feedback. All the institutions reported use of an electronic system for logging **written** compliments, however, only 2/13 (15 %) reported use of a similar system for logging **verbal** compliments. Just 1/13 (8 %) reported an alternative means for collecting positive patient feedback including PALS and, Care Opinion website.

Institutions were also asked to give an estimation of how effectively they systematically record both positive and negative patient feedback. 12/13 (92 %) felt that their current procedure facilitates the collection nearly all negative feedback in contrast to 6/13 (46 %) making that assertion about positive feedback (Fig. 3).

3.3. Effectiveness of patient feedback collection methods

The proportions of verbal and written feedback varied between positive and negative feedback. 10/13 (77 %), reported that negative feedback is predominantly communicated in writing, whilst positive feedback is mostly verbal or an even mix of verbal and written formats as reported by 8/13 (62 %) of institutions (Fig. 4).

3.4. Utilisation of patient feedback

The responses indicated that the use of patient feedback is consistent across institutions, with all reporting that feedback is shared with staff to support personal insight and development (see Fig. 5). Most institutions, 8/13 (62 %), indicated that feedback is centrally logged and incorporated into institutional performance reviews. 5/13 (38 %) institutions use patient feedback in the performance reviews of individual staff members. Additionally, only 1/13 (8 %) noted that the collected feedback is discussed in departmental meetings.

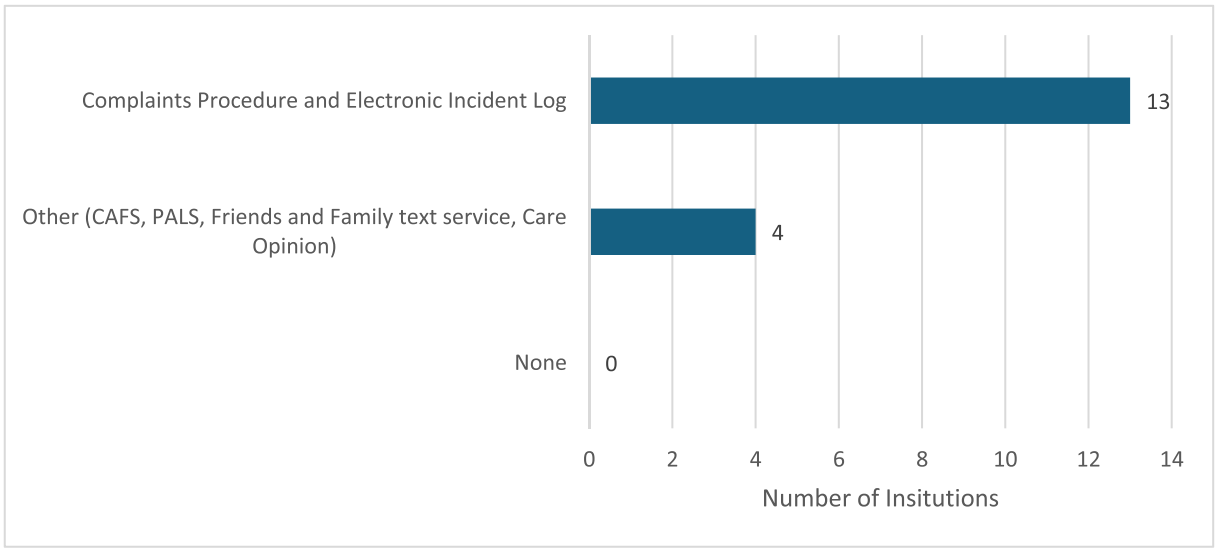

Fig. 1. Bar chart showing the types of systematic procedure used in the collection of negative patient feedback and incidents.

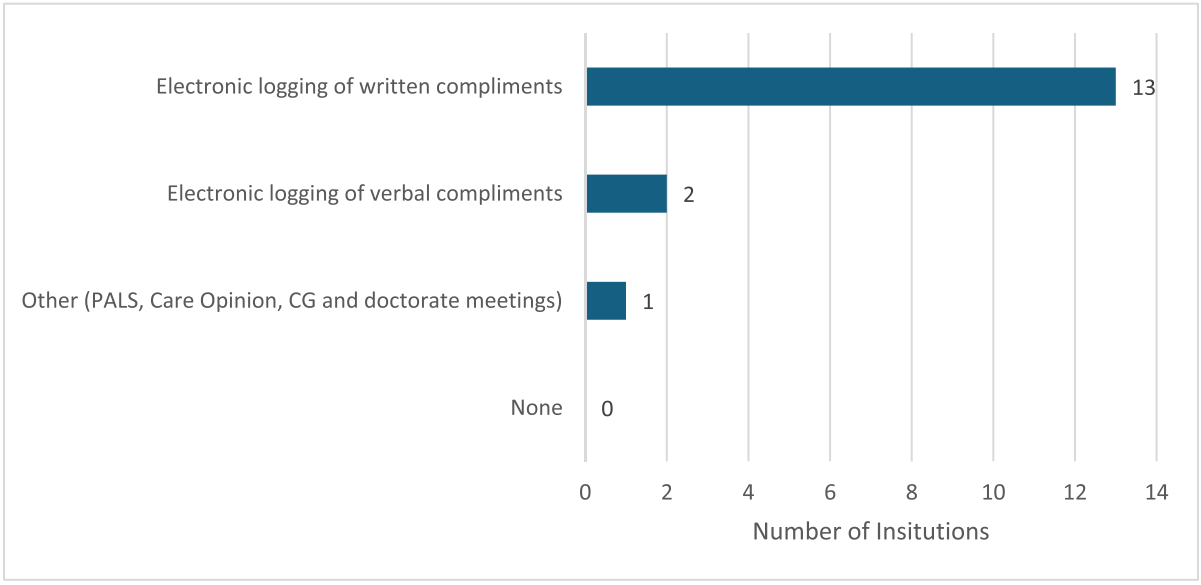

Fig. 2. Bar chart showing the types of systematic procedure used in the collection of positive patient feedback.

3.5. Perceived need for improvement

Interestingly, when asked which, if any, feedback procedure needed improvement 8/13 (62 %) of the institutions felt that only the positive feedback procedure needs to be improved, with a further 3/13 (23 %) of the institutions stating both feedback procedures need to be improved (Fig. 6).

3.6. Qualitative results

Additional comments from the participating institutions were collected as a free-text response at the end of the questionnaire. Three main themes were identified from these responses and can be seen in Table 1.

Examples of barriers faced by institutions in collecting feedback from patients include time constraints in gathering feedback, managing and processing automated data collection, and lower internet literacy among older patient cohorts.

In the responses provided by institutions, a key difference identified between recording and management of feedback was that with negative feedback the institutions focused on "*formal*" investigation and response. In contrast, for positive feedback the examples largely refer to merely an acknowledgement of the praise and, simply passing on the positive feedback received to the respective staff member, rather than logging the feedback in a more systematic manner.

4. Conclusions

This cross-sectional survey investigated the current procedures for collecting and logging positive and negative patient feedback in dental hospitals in the UK and the Republic of Ireland. Consistent with Tamer's 2022 internal audit of the University Dental Hospital, Cardiff (unpublished), we found that ADH institutions perceive that most negative feedback is logged, whereas most positive feedback is missed. It is apparent that there is a lack of a clear system for collecting positive feedback, especially when given verbally, compared to the more robust system for negative feedback. This highlights the need for improvement in the positive patient feedback procedure.

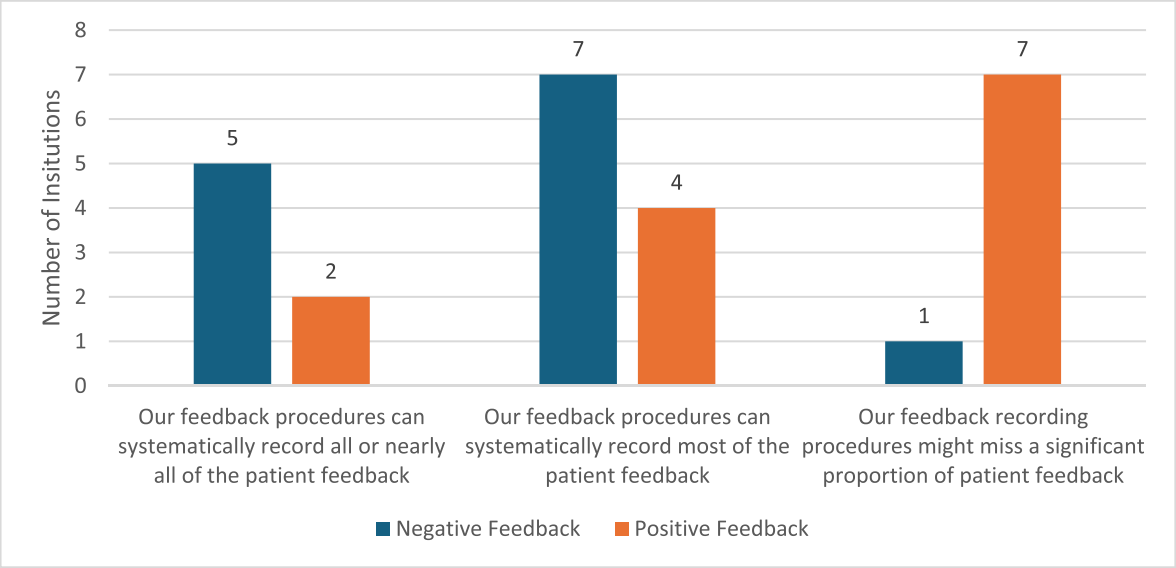

Fig. 3. Clustered column chart showing the perceived effectiveness of the current feedback procedure at each institution in recording positive and negative patient feedback.

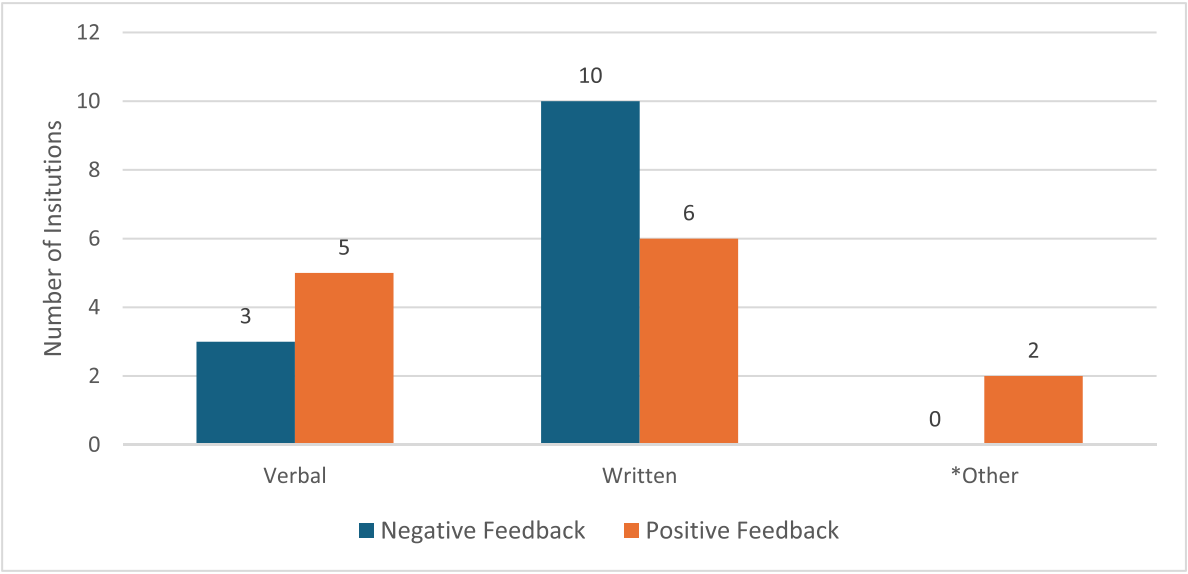

Fig. 4. Clustered column chart estimating how most of the patient feedback is given. *Other was indicated to be an even mix of verbal and written feedback.

Interestingly, each institution reported using either a complaints procedure or an electronic incident log for collecting negative feedback, despite both being required by the CQC [8]. This discrepancy could have resulted from misinterpretation of the question, as respondents may not have realised that multiple selections could be made.

All institutions report using various systematic procedures for negative patient feedback, including an official complaints procedure, electronic incident logs, PALS, FFT, and CAFS. Conversely, most institutions reported using only one method for collecting positive patient feedback, with only 3/13 (23 %) using more than one method. While all institutions practice electronic logging of written compliments, just 2/13 (15 %) have a system for electronically logging verbal compliments.

Patients often provide positive feedback informally through gestures like giving thanks, words of praise, or gifts, which are considered forms of positive feedback but are unlikely to be formally recorded [13]. The respondents indicated that patients were roughly as likely to provide positive feedback verbally as they were in written form, indicating that procedures for collecting verbal compliments should be as robust as those for written compliments. As one institution stated, "Care Opinion Cards handed out to patients result in a high response rate of positive feedback". This suggests that distributing the cards to patients could be an effective means of collecting positive feedback, as they can complete them after each course of treatment before leaving the clinic. In addition to greater diversity and use of methods to collect negative feedback, we also found that methods for collecting negative feedback were perceived as more effective than those for positive feedback, overall. In addition to a greater diversity and use of methods for collecting negative feedback, we also found that these methods were perceived as more effective overall than those for collecting positive feedback. Reasons for missing positive feedback included the absence of a method for collecting verbal feedback and difficulties discerning between different types of feedback (positive or negative) received via the Care Opinion platform (an independent non-profit online feedback platform for health and social care services). This is congruent with negativity bias [3], a preference to

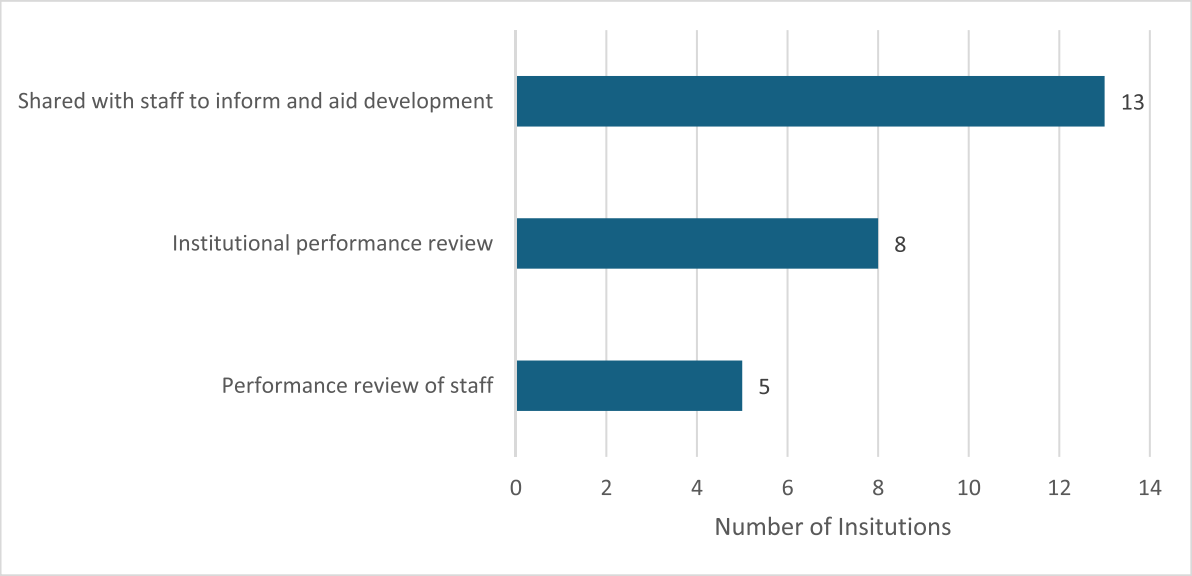

Fig. 5. Bar chart showing how the patient feedback (both positive and negative) is utilised.

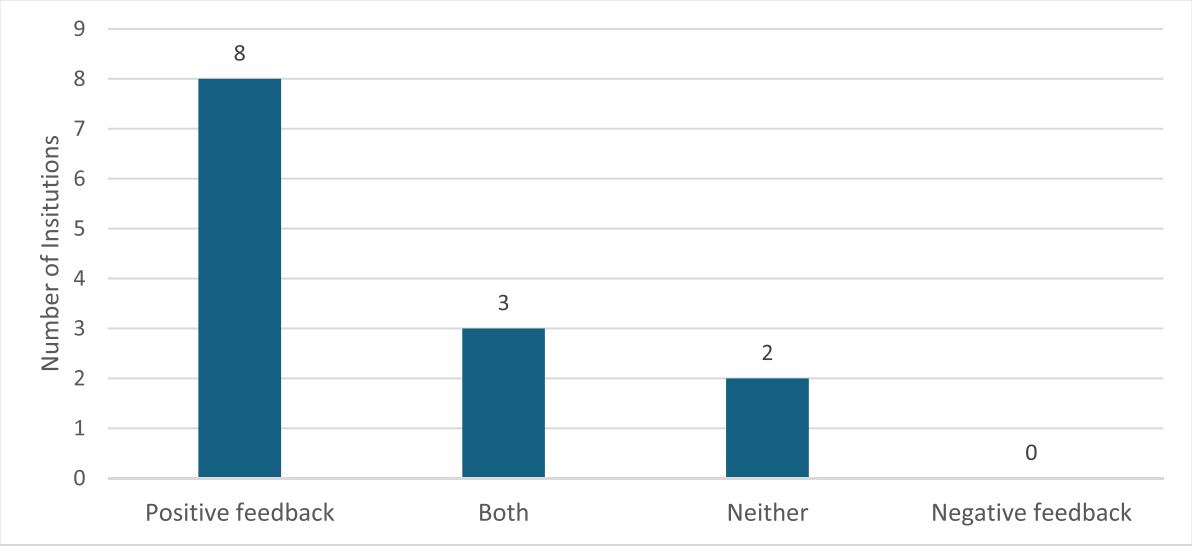

Fig. 6. Column chart showing which feedback procedures, if any, institutions felt need to be improved.

Table 1
Shows the themes emerging in the free text responses where the institutions were asked to briefly outline their reason for selecting which, if any, feedback procedure needs to be improved.

Theme	Example
A lack of systematic recording and central logging of positive feedback.	*There is a significant deficiency in the collection of positive feedback for staff* *Positive feedback communicated via online platforms is difficult to process and disseminate*
Greater emphasis is placed on recording of verbal negative feedback compared to positive.	*Verbal positive feedback frequently goes unrecorded, whereas for verbal negative feedback the complainant is encouraged to put their feedback in writing for a more formal investigation*
An effective system is already in place and no improvements is deemed necessary	*We are satisfied with the procedures we have for gathering feedback* *Care opinion cards handed out to patients is efficient in gathering positive feedback*

learn from failure via negative feedback, where more attention is placed on negative aspects and deficits when receiving any sort of information. It is crucial to learn from mistakes to prevent dangerous and serious errors in clinical practice. However, ignoring positive remarks and compliments to project a balanced view of one's performance can impact the psychological well-being of clinicians, leading to increased stress levels, anxiety, and depressive symptoms [14]. Understandably, most institutions acknowledged that the positive feedback procedure needs improvement, with three institutions noting that both feedback procedures require enhancement. The challenge is heightened in a busy hospital environment, where high patient turnover complicates large-scale feedback collection and adds pressure to an already strained organization. As a result, verbal compliments are often overlooked.

4.1. Strengths and limitations

An online questionnaire circulated via email was chosen for this study due to its efficiency in reaching institutions across the UK and Ireland quickly and efficiently. Additionally, the use of an online

questionnaire ensures confidentiality and anonymity by collecting responses directly onto a secure server within the Cardiff University network. Other methods of distribution, such as in-person or postal surveys, were considered less secure and less efficient.

A response rate of 59 % ($n = 13$) was achieved in this study. Initially, only 25 % of institutions responded, however, following a reminder, the response rate improved significantly. The timing of the survey, during the summer holidays, and the potentially lengthy approval process for gaining permission from institutional authorities may have impacted the initial response rate. To address potential reluctance to participate due to concerns about being judged against other institutions, it was clarified that individual institutions would remain unidentifiable in the published results. Data would be aggregated and presented as a single dataset rather than as individual responses. It is acknowledged that a higher response rate would have provided better representation and reduced non-response bias [15].

One limitation of the study is that it focuses solely on the institutional viewpoint regarding feedback collection. Future research should broaden its scope to include the perspectives of patients and individual clinicians on how feedback is collected and utilised. Additionally, qualitative research involving a range of stakeholders—such as patients, patient experience teams, dental professionals, and administrative staff—should be conducted to explore the barriers and facilitators to effectively collecting positive feedback in dental hospitals. Based on these findings, it may be possible to develop a universal feedback system that can be implemented across hospitals to simplify and enhance the collection and utilisation of patient feedback.

4.2. Implications for clinical practice

We found a discrepancy in the perceived effectiveness of feedback collected for staff and students, with students receiving more comprehensive feedback. A weekly bulletin displaying positive comments from patients offers several potential benefits; however, it also has some drawbacks. One issue is that it may lead to unrealistic expectations, as staff might strive to maintain a continuous flow of positive feedback. This could result in demotivation if praise is not received regularly [16]. An individualised positive feedback portal for staff could help alleviate the pressure associated with a shared bulletin. By allowing staff to view their own praise, this approach can reduce the pressure to sustain a constant stream of positive feedback. Additionally, sharing positive comments at an individual level helps mitigate the risk of breaching patient confidentiality, which could occur with a public bulletin. To address this issue, implementing an online platform for capturing patient expressions of gratitude voluntarily can be beneficial. Such a platform would facilitate the recording of feedback as it is received and might encourage more patients to provide their input. The platform should be developed using the COM-B model to ensure that patients have the opportunity to provide feedback, while staff and services have the opportunity to access and reflect on feedback.

Whilst this study was conducted within the UK and the Republic of Ireland there are important lessons, commonalities, and messages which can be learned and acted on at other similar hospitals around the world.

It is evident that positive patient feedback is collected and logged less systematically than negative feedback, and most institutions acknowledge the need for improvement in this area. This discrepancy likely stems from a lack of structured procedures for encouraging and recording positive feedback. Promoting positive feedback is crucial, as both positive and negative feedback offer valuable insights. To enhance feedback collection and utilisation, research should expand to include the perspectives of patients and individual clinicians. Furthermore, exploring the development of a universal feedback system could simplify and improve the collection and use of patient feedback across institutions.

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CRediT authorship contribution statement

E Barrow: Writing – review & editing, Writing – original draft, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **P Mylonas:** Writing – review & editing, Validation, Supervision. **R Pattinson:** Writing – review & editing, Validation, Supervision. **L Sadaghiani:** Writing – review & editing, Validation, Supervision, Project administration.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.jdent.2024.105501.

References

[1] D. Byrne, A worked example of Braun and Clarke's approach to reflexive thematic analysis, Qual. Quant. 56 (3) (2022) 1391–1412.
[2] M. Tamer, How is the collection of positive feedback facilitated at Cardiff University Dental Hospital?, Final Year Project 2021/22 (Unpublished).
[3] A. Vaish, T. Grossmann, A. Woodward, Not all emotions are created equal: the negativity bias in social-emotional development, Psychol. Bull. 134 (3) (2008) 383–403.
[4] V. Collin, M. Toon, E. O'Selmo, L. Reynolds, P. Whitehead, A survey of stress, burnout and well-being in UK dentists, Br. Dent. J. 226 (1) (2019) 40–49.
[5] R.M. Ryan, E.L. Deci, Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being, Am. Psychol. 55 (1) (2000) 68–78.
[6] C.L. Garcia, L.C. Abreu, J.L.S. Ramos, C.F.D. Castro, F.R.N. Smiderle, J.A.D. Santos, I.M.P. Bezerra, Influence of burnout on patient safety: systematic review and meta-analysis, Medicina (Kaunas). 55 (9) (2019).
[7] S. De Hert, Burnout in healthcare workers: prevalence, impact and preventative strategies, Local Reg. Anesth. 13 (2020) 171–183.
[8] CQC, Health and social care act 2008 (Regulated Activities) regulations, 2014. https://www.cqc.org.uk/guidance-providers/regulations/regulation-9-person-centred-care. (Accessed 20/08 2023).
[9] D.o.H.a.S. Care, The NHS constitution for England, in: D.o.H.a.S. Care (Ed.) GOV. UK, 2023.
[10] NICE, 2021 surveillance of patient experience in adult NHS services (NICE guideline GG138), national institute for health and care excellence (2021).
[11] S. Michie, M.M. van Stralen, R. West, The behaviour change wheel: a new method for characterising and designing behaviour change interventions, Implement. Sci. 6 (1) (2011) 42.
[12] T.A.o.D. hospitals, members of the association of dental hospitals, 2023. https://dentalhospitals.org.uk/members/. (Accessed 30/08 2023).
[13] G. Hardavella, A. Aamli-Gaagnat, N. Saad, I. Rousalova, K.B. Sreter, How to give and receive feedback effectively, Breathe (Sheff) 13 (4) (2017) 327–333.
[14] M.S. Ranka, S.R. Ranka, Survey of mental health of dentists in the COVID-19 pandemic in the UK, J. Int. Soc. Prev. Community Dent. 11 (1) (2021) 104–108.
[15] J.E. Fincham, Response rates and responsiveness for surveys, standards, and the Journal, Am. J. Pharm. Educ. 72 (2) (2008) 43.
[16] J. Gnepp, J. Klayman, I.O. Williamson, S. Barlas, The future of feedback: motivating performance improvement through future-focused feedback, PLoS ONE 15 (6) (2020) e0234444.